

adjusted signal values for at least one of the parameters such as "vibration", "light", "dark" or "mid tone". Differential values are obtained from real measured dimensions and the predetermined desired dimensions of the sample cup shapes, taking into account the transmission functions, whereby the differential values are used to correct the adjusted signal values. Operations are repeated using the corrected signal values until the real dimensions of the engraved cup shapes correspond to at least a permissible variation of the desired dimensions.--

IN THE CLAIMS:

On page 14¹⁵ of the claims, line 1, please change "Patent Claims" to --I CLAIM AS MY INVENTION--.

Please cancel claims 1-9 without prejudice.

Please substitute claims 10-18 as follows:

10. A method for calibrating an engraving amplifier in an electronic engraving machine for engraving printing cylinders for gravure printing, comprising the steps of:

acquiring an engraving signal for actuating an engraving stylus of an engraving member from engraving values representing desired tone values and a periodic vibration signal in an engraving amplifier that can be adjusted by signal values for generating an engraving raster;

with the engraving stylus, engraving cells into the printing cylinder, the actual dimensions of the cells representing engraved actual tone values;

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gradation" at the engraving amplifier;

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consideration of the ~~transmission~~ functions;

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desired dimensions;

to shorten calibration time,

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~~/functions;~~

~~computing new difference values upon
consideration of the recalculated transmission
functions; and~~

~~correcting the signal values using the new
difference values.~~

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11. The method of claim 10 wherein the
recalculation of new transmission functions respectively
occurs by difference formation between the adjusted
signal values and by difference formation between the
functionally corresponding actual dimensions of the cells
of two successive sequences from the step of setting the
signal values to the step of correcting the signal
values.

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12. The method of claim 10 wherein the dimension
of a cell is a cross-diagonal, a longitudinal diagonal
and penetration depth.

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13. The method of claim 10 wherein the difference
value of the vibration signal value for the parameter
"vibration" is computed from a difference between the
actual dimensions and the desired dimensions of a test
cell representing a tone value domain "depth".

~~14. The method of claim 10 wherein~~

~~a fictional cross-diagonal for a test cell
represents the tone value domain "light" as a sum of
measured cross-diagonals and a cross-diagonal variation
which arises owing to a variation of a vibration signal;~~

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a deviation of the fictional cross-diagonals from desired cross-diagonals is computed; and

5 a difference value of the engraving signal value for the parameter "light" is computed from the determined deviation and the transmission function which represents the relationship between a variation of the engraving signal value for the parameter "light" and the resulting variation of the cross-diagonals of a test cell representing the tone value domain "light".

10 15. The method of claim 10 wherein

a fictional cross-diagonal for a cell representing the tone value domain "depth" is determined as a sum of the measured cross-diagonals and a cross-diagonal variation that occurs owing to the variation of the vibration signal;

15 the deviation of the fictional cross-diagonals from the desired cross-diagonals is determined; and

20 the difference value of the engraving signal value for the parameter "depth" is computed from the determined deviation and the transmission function, which reproduces a relationship between a variation of the engraving signal value for the parameter "depth" and a resulting variation of the cross-diagonals of a test cell representing the tone value domain "depth".

25 16. The method of claim 10 wherein

a fictional cross-diagonal for a test cell representing the tone value domain "medium gradation" is computed as a sum of the measured cross-diagonals and